## **ABSTRACT**

The present invention provides a method of doing cognitive diagnosis of mental skills, medical and psychiatric diagnosis of diseases and disorders, and in general the diagnosing of latent properties of a set of objects, usually people, for which multiple pieces of binary (dichotomous) information about the objects are available, for example testing examinees using right/wrong scored test questions. Settings where the present invention can be applied but are not limited to include classrooms at all levels, web-based instruction, corporate in-house training, large scale standardized tests, and medical and psychiatric settings. Uses include but are not limited to individual learner feedback, learner remediation, group level educational assessment, and medical and psychiatric treatment.